



AUSTRALIAN BITCOIN INDUSTRY BODY

Position Paper

Token Mapping – Consultation Paper

March 2023

Australian Bitcoin Industry Body Ltd.

Web: <https://bitcoinindustrybody.org.au/>

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Director – Crypto Policy Unit
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The Treasury
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Thank you for providing the Australian Bitcoin Industry Body (ABIB) with the opportunity to respond to *Token Mapping – Consultation Paper*.

Please direct any questions to:

About the Australian Bitcoin Industry Body (ABIB)

ABIB is the peak industry body that represents organisations and professionals that engage exclusively with the Bitcoin network within Australia.

ABIB's primary objectives are to advance and promote:

Bitcoin, not Crypto

Bitcoin is the world's only truly decentralised peer-to-peer, open, uncensorable and voluntary monetary network with an immutable fixed supply. It has no CEO, no foundation, no marketing team. Properly understood, it is clear that Bitcoin is distinct and separate from all other cryptocurrencies.

The HODL Act

To protect the nation's treasury against the persistent and inevitable decline in the value of fiat currencies, we call upon the Australian government to enact legislation that permits government, at both a Federal and State level, as well as the Reserve Bank of Australia, to allocate a portion of their treasury to bitcoin.

Privacy and Freedom of Speech

Privacy is a human right, as declared by the United Nations in the Universal Declaration of Human Rights, Article 12. As such, we reject all forms of surveillance including chain surveillance, central bank digital currencies and mass surveillance of communications and internet activity. Additionally, we reject the censorship of speech, code or financial transactions.

Financial Self-Sovereignty

Empower Australians to achieve financial self-sovereignty by becoming independent of "trusted" intermediaries, such as banks. Bitcoin facilitates this through the ability to receive bitcoin directly, as well as the ability to make payments for goods and services.

Executive Summary

Based on ABIB's understanding of Bitcoin, it would appear that Bitcoin has been excluded from the Token Mapping Consultation Paper, and therefore future regulation of the crypto sector. It is unclear if this is intentional, as the definitions provided are difficult to interpret and not written in the language commonly used to describe Bitcoin. As has previously been communicated, ABIB supports regulating Bitcoin and crypto separately. If this is the aim of the paper, ABIB would strongly support this direction.

Overview

"Learning all the fundamentals which make Bitcoin work is hard. Understanding all of them deeply is borderline impossible."

Gigi – 21 Lessons

The Token Mapping consultation paper describes a crypto token as follows:

33. (p13) A **crypto token** is a unit of digital information that can be 'exclusively used or controlled' by a person – despite that person not controlling the host hardware where that token is recorded. The concept of 'exclusive use and control' is a key distinguishing factor between crypto tokens and other digital records. It has been used in legal frameworks and considered in detail by peer jurisdictions.

It is unclear what is meant by a 'unit of digital information'. The base digital unit of information is a *bit*. Computers are binary and can only operate in an on or off state. These states are represented numerically as either a 1 or 0. A bit is therefore the base unit of digital information (either a 1 or a 0). A *byte* represents 8 bits (reference: <https://web.stanford.edu/class/cs101/bits-bytes.html>). A byte can typically store one character (eg 'a'). While footnote 40 is provided in the paper, no further explanation was found in relation to the intended meaning of 'unit of digital information'. Bitcoin is significantly more complex than a bit or a byte, and does not appear to be a *crypto token* under the definition provided.

Further, bitcoin is not a token; it's a ledger. As is explained by Gigi in [Bitcoin is Time](#), tokens are not an effective form of digital money as they are easy to copy. Therefore, the Bitcoin protocol uses a digital ledger to record transactions, from which balances can be derived. The use of a blockchain ensures that the transactions are recorded in the correct sequence, and enables global consensus on the transactions, and therefore balances.

“...there are no bitcoins. Not only physically, but technically.

Bitcoin keeps track of a set of unspent transaction outputs, without ever having to refer to an entity which represents a bitcoin. The existence of a bitcoin is inferred by looking at the set of unspent transaction outputs and calling every entry with 100 million base units a bitcoin.”

Gigi – 21 Lessons

The units of bitcoin that are possible to own are called Unspent Transaction Outputs (UTXOs). UTXOs hold an amount of bitcoin (recorded down to eight decimal places) at a public address.

“Bitcoin wallets contain keys, not coins”

- Andreas Antonopoulos, *Mastering Bitcoin*

Someone is considered the owner of a UTXO if they can successfully build a Bitcoin transaction using that UTXO as an input (*ie* spend all or part of the bitcoin balance of that UTXO) or sign a message proving that they possess the private key corresponding to the public address of that UTXO. In either case, the user must possess the private key to the UTXO. Thus, Bitcoin users do not own tokens, they own UTXOs, and they prove ownership of their UTXOs with private keys. Most users will not store the individual private key for each UTXO, they will instead store a *seed*, from which each private key can be derived. A seed is typically between 128 and 256 bits, to ensure adequate security. Improvements to Bitcoin have allowed users to store their seed in human readable words, usually between 12 and 24 words. A thorough explanation of the derivation of private and public keys is beyond the scope of this paper. The following resources go into more detail:

[Mastering Bitcoin](#)
[learn me a bitcoin](#)

Some users choose not to take custody of their bitcoin (*ie* own the private keys to a UTXO) and instead leave their bitcoin on an exchange. These users do not own bitcoin, but a promise that a third party will allow them to withdraw bitcoin in future, effectively a *bitcoin deposit*. It would be instructive to have clear separation between the concepts of *bitcoin* and *bitcoin deposit*, similar to the descriptions of fiat currency that have been defined: *ie* cash (notes and coins) is known as *currency* and is a liability of the Reserve Bank of Australia, whereas *deposits* represent currency that has been deposited at a commercial bank which does not have sufficient currency for all of its customers to withdraw their currency at the same time. Bitcoin is a liability of the Bitcoin protocol, which is open-source and can be audited. A bitcoin deposit is a liability of an exchange, which as many users have discovered, cannot always be withdrawn from the exchange. The term *crypto token* as defined in the Token Mapping consultation paper does not appear to include bitcoin deposits.

Finally, the paper covers *smart contracts*, but specifies in a reference that includes Bitcoin that “*These networks are not designed to host the types of smart contracts considered in this paper*” (91 p29).

To summarise, Bitcoin is a ledger not a token, and the units of bitcoin that are possible to own are UTXOs, which are controlled by private keys. Based on this, bitcoin is not a *crypto token* as defined in the Token Mapping Consultation Paper. Further, the Bitcoin network has been specifically listed as being out-of-scope from the “types of smart contracts considered in this paper”. Therefore, ABIB’s interpretation is that Bitcoin and the Bitcoin-Only industry, from which ABIB’s members are comprised, are excluded from the Token Mapping Consultation Paper and associated future regulation.

ABIB agrees that Bitcoin and the Bitcoin-Only industry should be excluded from the crypto token mapping exercise, as ABIB’s members are already regulated by AUSTRAC. Given that, according to the consultation paper, only 0.15% of global crypto transactions are illicit (Foreword, p5, footnote 8), the existing regulation of Bitcoin-Only exchanges and businesses appears sufficient. ABIB has a positive working relationship with AUSTRAC, and looks forward to continuing to work closely with AUSTRAC to ensure that the use of bitcoin for illicit transactions is minimised.

Excluding Bitcoin from the Token Mapping regulations would bring Australia broadly in line with recent statements made by Gary Gensler, Chair of the U.S. Securities and Exchange Commission, which imply that crypto tokens (*ie* “everything other than Bitcoin”) will be considered securities, while Bitcoin would be exempt from this classification. ABIB requests that Treasury provide clearer language to confirm that Australia will follow the United States’ lead and exclude Bitcoin from crypto regulation.

Chair Gensler shared his views on the differences between how bitcoin and crypto will be regulated in an interview with Ankush Khardori [published by Intelligencer](#) on 23 February 2023.

“Everything other than bitcoin,” Gensler told me, “you can find a website, you can find a group of entrepreneurs, they might set up their legal entities in a tax haven offshore, they might have a foundation, they might lawyer it up to try to arbitrage and make it hard jurisdictionally or so forth.”

- Gary Gensler, Chair of U.S. Securities and Exchange Commission as quoted in [Intelligencer](#).

*Over the course of our discussion, he articulated a straightforward view of the agency’s reach — that pretty much every sort of crypto transaction already falls under the SEC’s jurisdiction **except spot transactions in bitcoin itself** and the actual purchase or sale of goods or services with cryptocurrencies.*

- Ankush Khardori, [Intelligencer](#) (emphasis added).

Consultation Questions

Q1) *What do you think the role of Government should be in the regulation of the crypto ecosystem?*

The answer to this question will use the following definitions, which are consistent with discourse in the global Bitcoin community.

- *Bitcoin* – An open-source, trustless, decentralised protocol that enables the saving and transacting of sound money via a ledger which is stored on a decentralised blockchain. <https://bitcoin.org/bitcoin.pdf>).
- *Crypto* – While Bitcoin uses cryptography as part of its protocol, the term *crypto* has come to mean the industry that has formed around projects which are copies of Bitcoin's underlying technology but involve a trusted third party. Crypto projects are therefore an oxymoron: they use a technology that was designed to remove the need for a trusted third-party and then re-insert the trusted third-party. These projects have the costs of decentralisation and centralisation, without the benefits of either, and will eventually fail. That they suggest otherwise in their marketing is dishonest.
- *Crypto ecosystem* – The exchanges, organisations, projects, consultants and other entities that interact with blockchain projects outside of Bitcoin.
- *Bitcoin-Only* – Companies and organisations that provide products and services that interact solely with Bitcoin. Examples of such companies include exchanges and wallets.

It is ABIB's view that in attempting to map crypto tokens to existing legislation that the government is legitimising the crypto industry, which is dishonest and poses significant risks (with no sustainable rewards) to those who engage with it.

Additionally, the proposed legislation will stymie innovation within Australia. This consultation paper is based on incorrect definitions which makes anticipating future regulations confusing. Rather than focusing on developing their business, organisations will need to devote time and precious capital to a legal review of this proposed set of regulations. Given the global nature of Bitcoin, these organisations may find it beneficial to move their organisation to a jurisdiction that has clearer regulations and where they can confidently invest capital in their businesses.

ABIB sees no need to further regulate the Bitcoin-Only industry. Per this consultation paper, only 0.15% of global crypto transactions are illicit, and of those, over half were related to scams and theft. The implication is that less than 0.075% of global crypto transactions involve money laundering or terrorism financing. ABIB's members are already registered with and regulated by AUSTRAC, the body established to fight money laundering and terrorism financing within Australia. Given the minuscule proportion of illicit transactions and the fact that regulation is already in place to target this specific risk, ABIB sees no requirement for further regulation.

Further, efforts are currently being made to develop decentralised facilities that enable the exchange of fiat currencies and bitcoin. Further regulation of the already compliant Bitcoin-Only industry will only encourage users to seek decentralised alternatives that allow them to transact privately.

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The risks that are present in the crypto ecosystem largely do not apply to the Bitcoin-Only industry, and those that exist are proactively mitigated. These risks include:

- The sale and promotion of pyramid / ponzi schemes, such as crypto tokens and yield products, which none of ABIB's members engage in.
- The risk of loss of funds from the collapse of an exchange – All of ABIB's members encourage self-custody of bitcoin through low bitcoin withdrawal fees and by educating their customers to self-custody their assets.

Finally, current regulation of the banking sector, whether intended or not, has resulted in countless episodes of de-banking of AUSTRAC compliant Bitcoin-Only exchanges. It is assumed that fears around consequences related to the tipping-off rule have meant that no feedback is given to those exchanges that are de-banked, and what recourse is available in the event of a dispute. Enquiries made by ABIB regarding feedback about the recent decision by one Australian bank to de-bank more than half of ABIB's members were not responded to. This is a major source of frustration for ABIB's members, who are compliant with AUSTRAC, have formed and funded ABIB to represent their views, and collaborate with AUSTRAC in bi-annual meetings. And yet, all live in fear of being de-banked, which at best adds development cost to allow for the connection of their application to a new financial partner, and at worst forces them to cease operations. ABIB believes that banks are being overly and unnecessarily conservative with their decisions regarding banking bitcoin exchanges, a standard which is not applied to the competing gold-bullion sector. Consideration should be given on how to remedy this situation, with clarifying the existing regulation being the preferred option, rather than adding further regulation.

Q2) What are your views on potential safeguards for consumers and investors?

It is ABIB's view that the provision of safeguards will, paradoxically, increase the harm to consumers and investors. The presence of a safeguard encourages an investor to seek reward, assuming that they will be protected by the government from any risks. However, the reality is that the future crypto scams will be different from those observed in the past. [Coin Gecko](#) lists over 12,000 crypto tokens, it will not be possible for these and all new tokens to be mapped and regulated. A more effective policy would be to clearly state that consumers and investors are specifically not protected when engaging in the crypto ecosystem and that they should be strongly encouraged to exercise due diligence. Or in the language familiar to all Bitcoiners: *Don't trust, verify*.

Q3) Scams can be difficult for some consumers to identify.

a) Are there solutions (e.g. disclosure, code auditing or other requirements) that could be applied to safeguard consumers that choose to use crypto assets?

The solution to this already exists. Consumers should be diligent, run their own node and audit the money supply, or as this is commonly referred to in the Bitcoin community: *don't trust, verify*.

b) What policy or regulatory levers could be used to ensure crypto token exchanges (sic) do not offer scam tokens or more broadly, prevent consumers from being exposed to scams involving crypto assets? See answer to Q2.

Q4) The concept of ‘exclusive use or control’ of public data is a key distinguishing feature between crypto tokens/crypto networks and other data records.

In crypto protocols (ie not Bitcoin), a central party can either prevent a user from transacting (censorship), alter the money supply (devalue the user’s asset) or shut-down the protocol. Thus, in the crypto ecosystem, the concept of *exclusive use or control* cannot apply.

a) How do you think the concepts could be used in a general definition of crypto token and crypto network for the purposes of future legislation?

This concept is not valid and should not be applied.

b) What are the benefits and disadvantages of adopting this approach to define crypto tokens and crypto networks?

Legislation should not be built upon a foundation of invalid definitions.

Q5) This paper sets out some reasons for why a bespoke ‘crypto asset’ taxonomy may have minimal regulatory value.

Agreed. ABIB sees no value in a bespoke ‘crypto asset’ taxonomy.

Q6) Some intermediated crypto assets are ‘backed’ by existing items, goods, or assets. These crypto assets can be broadly described as ‘wrapped’ real world assets.

ABIB has no view on this question as it does not apply to bitcoin.

Q7) It can be difficult to identify the arrangements that constitute an intermediated token system.

ABIB has no view on this question as it does not apply to bitcoin.

Q8) In addition to the functional perimeter, the Corporations Act lists specific products that are financial products. The inclusion of specific financial products is intended to both: (i) provide guidance on the functional perimeter; (ii) add products that do not fall within the general financial functions.

ABIB has no view on this question as bitcoin is not a financial product.

Q9) Some regulatory frameworks in other jurisdictions have placed restrictions on the issuance of intermediated crypto assets to specific public crypto networks. What (if any) are appropriate measures for assessing the suitability of a specific public crypto network to host wrapped real world assets?

Bitcoin is the only cryptocurrency network that is secure enough to host an asset. All other applications would be more efficiently hosted on a server, which is less costly to run than a blockchain and has equivalent security properties.

Q10) Intermediated crypto assets involve crypto tokens linked to intangible property or other arrangements. Should there be limits, restrictions or frictions on the investment by consumers in relation to any arrangements not covered already by the financial services framework? Why?

ABIB has no view on this question as it does not apply to bitcoin.

Q11) Some jurisdictions have implemented regulatory frameworks that address the marketing and promotion of products within the crypto ecosystem (including network tokens and public smart contracts). Would a similar solution be suitable for Australia? If so, how might this be implemented?

The ACCC already has oversight for advertising [false or misleading claims](#). ABIB sees no reason to develop additional legislation. However, educating the ACCC on the underlying fundamentals of Bitcoin may assist the ACCC in identifying false and misleading claims in the crypto ecosystem.

Q12) Smart contracts are commonly developed as ‘free open-source software’. They are often published and republished by entities other than their original authors.

A smart contract must be free open-source software (FOSS), or it cannot be a contract. In order for any party to enter into a contract, they must be able to review it, whether it is a legal document written in their spoken language, or a smart contract written in computer code. The FOSS ecosystem actively encourages the modification and republication of software.

a) What are the regulatory and policy levers available to encourage the development of smart contracts that comply with existing regulatory frameworks?

Smart contracts do not exist in any single jurisdiction. Therefore it will not be possible, nor desirable, for smart contracts to comply with all of the regulatory frameworks in every jurisdiction on Earth. Smart contracts exist to circumvent the need for a third party, such as a government or judicial system, to oversee the fairest outcome. Citizens who wish to utilise the existing judicial system in their local jurisdiction would be better served by creating standard legal contracts.

b) What are the regulatory and policy levers available to ensure smart contract applications comply with existing regulatory (sic) frameworks?

See 12b).

Q13) Some smart contract applications assist users to connect to smart contracts that implement a pawn-broker style of collateralised lending (i.e. only recourse in the event of default is the collateral).

ABIB's members are not currently engaged in lending, and ABIB has not formed a view on collateralised lending. Refer back to Question 12 regarding the purpose of smart contracts.

Q14) Some smart contract applications assist users to connect to automated market makers (AMM).

a) What are the key differences in risk between using an AMM and using the services of a crypto asset exchange?

Users of a crypto asset exchange must provide their personal details to an exchange, which presents the risk of their identity, which is linked to their purchases and withdrawals, being exposed in a hack or court-proceeding.

b) Is there quantifiable data on consumer outcomes in trading on conventional crypto asset exchanges compared with user outcomes in trading on AMMs?

Not that ABIB is aware of.